

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A device for determining spatial co-ordinates of an object(s), comprising:

- a projector (3) which projects onto the object (2) a pattern (4) with known projection data;
- a camera (6) which creates an object image (8) of the pattern (4) projected onto the object (2), the pattern (4) containing redundant encoded projection data;
- a data processing unit (7) connected downstream from the camera (6), which determines spatial co-ordinates of the object (2) from the object image (8) and the known projection data using a structured light approach, in which the spatial co-ordinates of the object (2) are determined using a known distance between the projector (3) and the camera (6); and
- at least one further camera (6) which creates a further object image (9) and the data processing unit (7) determines additional spatial co-ordinates of the object (2) from the object images (8, 9) by a triangulation method, ~~the pattern (4) contains redundant encoded projection data,~~ and the data processing unit (7) restricts

a search for corresponding image points ( $S_l$ ,  $S_r$ ) to problem areas in which an evaluation of [[the]] redundant data of the object images (8, 9) produces an erroneous result.

2. (canceled)

3. (previously presented) The device as claimed in claim 1, wherein epipolar lines (16, 17) pass through a plurality of marks of the pattern (4).

4. (canceled)

5. (currently amended) A method for determining spatial co-ordinates of an object(s), comprising:

- projecting a pattern (4) with known projection data onto an object (2) by using a projector (3);
- creating an object image (8) with aid of a camera (6);
- determining the spatial co-ordinates from the known projection data in a data processing unit (7) using a structured light approach, in which the spatial co-ordinates of the object (2) are determined using a known distance between the projector (3) and the camera (6);
- recording with aid of a further camera (6) a further object image (9) and that, if the spatial co-ordinates are determined incorrectly, determining additional spatial co-ordinates of the

object (2) are ~~determined~~ on a basis of the projection data and one of the object images (8, 9) by searching for corresponding image points ( $S_l$ ,  $S_r$ ) in the object images (8, 9) and a subsequent triangulation.

6. (previously presented) The method as claimed in claim 5, wherein corresponding pixels ( $S_l$ ,  $S_r$ ) are searched for along epipolar lines (16, 17).

7. (canceled)

8. (canceled)

9. (canceled)

10. (currently amended) A method for determining spatial co-ordinates of an object(s), comprising:

- projecting a pattern (4) with known projection data onto an object (2) by using a projector (3);
- creating an object image (8) with aid of a camera (6);
- determining the spatial co-ordinates from the known projection data in a data processing unit (7) using a structured light approach, in which the spatial co-

ordinates of the object (2) are determined using a known distance between the projector (3) and the camera (6); and

- recording with aid of a further camera (6) a further object image (9) and that, if the spatial co-ordinates are determined incorrectly, additional spatial co-ordinates of the object (2) are determined on a basis of the projection data and one of the object images (8, 9) by searching for corresponding image points ( $S_l$ ,  $S_r$ ) in the object images (8, 9) and a subsequent triangulation,

wherein the pattern (4) contains redundant encoded projection data, and the data processing unit (7) restricts the search for corresponding image points ( $S_l$ ,  $S_r$ ) to problem areas in which an evaluation of the redundant data of the object images (8, 9) produces an erroneous result.

11. (previously presented) The method as claimed in claim 10, wherein corresponding pixels ( $S_l$ ,  $S_r$ ) are searched for along epipolar lines (16, 17).

12. (previously presented) The method as claimed in claim 10, wherein epipolar lines (16, 17) pass through a plurality of marks of the pattern (4).